SANTA CRUZ BIOTECHNOLOGY, INC.

SCAMP3 (F-20): sc-13624

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Secretory carrier membrane proteins (SCAMPs) are components of the post-Golgi membranes and are invovled in endocytosis, vesicle recycling and membrane trafficking. The structural features of SCAMPs include multiple N-terminal NPF repeats and four highly conserved transmembrane regions. These NPF repeats frequently interact with EH domain proteins and aid in the budding of transport vesicles from the plasma membrane or the Golgi complex. Endocytic budding at the plasma membrane and vesicle budding at the *trans*-Golgi complex facilitates binding of SCAMP proteins to EH domain proteins. SCAMPs exist as distinct but related proteins that include SCAMP1, SCAMP2 and SCAMP3. Tyrosine-phosphorylation by the epidermal growth factor-receptor of SCAMP1 and SCAMP3 suggests that SCAMPs are regulated by phosphorylation. Although SCAMPs are ubiquitously expressed throughout all tissue, in neural tissue the synaptic vesicles express a particularly high concentration of SCAMP1.

REFERENCES

1. Brand, S.H., et al. 1991. Secretory carrier membrane proteins 31-35 define a common protein composition among secretory carrier membranes. J. Biol. Chem. 266: 18949-18957.
2. Brand, S.H. and Castle, J.D. 1993. SCAMP 37, a new marker within the general cell surface recycling system. EMBO J. 12: 3753-3761.
3. Laurie, S.M., et al. 1993. The glucose transporter GluT4 and secretory carrier membrane proteins (SCAMPs) colocalize in rat adipocytes and partially segregate during Insulin stimulation. J. Biol. Chem. 268: 19110-19117.
4. Wu, T.T. and Castle, J.D. 1997. Evidence for colocalization and interacion beween 37 and 39 kDa isoforms of secretory carrier membrane proteins (SCAMPs). J. Cell Sci. 110: 1533-1541.
5. DeBeer, T., et al. 1998. Structure and Asn-Pro-Phe binding pocket of the Eps15 homology domain. Science 281: 1357-1360.
6. Paoluzi, S., et al. 1998. Recognition specificity of individual EH domains of mammals and yeast. EMBO J. 17: 6541-6550.
7. Wu, T.T. and Castle, J.D. 1998. Tyrosine pohshorylation of selected secretory carrier membrane proteins, SCAMP1 and SCAMP3, and association with the EGF receptor. Mol. Biol. Cell 9: 1661-1674.
8. Fernadez-Chacon, R., et al. 2000. SCAMP1 function in endocytosis. J. Biol. Chem. 275: 12752-12756.

CHROMOSOMAL LOCATION

Genetic locus: SCAMP3 (human) mapping to 1q22.

SOURCE

SCAMP3 (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SCAMP3 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SCAMP3 (F-20) is recommended for detection of SCAMP3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SCAMP3 (F-20) is also recommended for detection of SCAMP3 in additional species, including bovine.

Suitable for use as control antibody for SCAMP3 siRNA (h): sc-41294, SCAMP3 shRNA Plasmid (h): sc-41294-SH and SCAMP3 shRNA (h) Lentiviral Particles: sc-41294-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.